



WATER AND SEWAGE PLANT OPERATOR (SAFETY)

Exam Code: 1FS23

DEPARTMENT(S):	Department of Forestry & Fire Protection
OPENING DATE:	JULY 26, 2021
FINAL FILING DATE:	AUGUST 23, 2021
EXAM TYPE:	OPEN
SALARY:	\$6,501.00 - \$7,423.00
LOCATIONS:	Statewide

EQUAL EMPLOYMENT & DRUG FREE STATEMENTS

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right to family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding and related medical conditions), and sexual orientation.

It is an objective of the State of California to achieve a drug-free state work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the state, the rules governing civil service, and the special trust placed in public servants.

WHO CAN APPLY

Persons who meet the minimum qualifications of the classification, as stated on this examination bulletin. All applicants must meet the education and/or experience requirements by the final filing date of **August 23, 2021** unless otherwise noted on the class specification.

SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special testing arrangements, mark the appropriate box on the application and you **MUST** submit the [Accommodation Request Form \(STD. 679\)](#) with your application. This can also be found on the California Department of Human Resources (CalHR) website.

HOW TO APPLY

To apply for this examination, please complete and return the following:

- [Examination/Employment Application \(STD.678\)](#). This can also be found on the California Department of Human Resources website. *You may submit your application by mail or in person.*
- A Training and Experience Narrative is a written document responding to the questions in the **EXAMINATION INFORMATION** section which will demonstrate how your background meets the knowledge, skills, and abilities cited in this examination bulletin.

SUBMIT BY MAIL OR IN PERSON:

Department of Forestry and Fire Protection
710 Riverpoint Court
West Sacramento, CA 95605
Examination Unit – (Attn: Carol Anderson)

DO NOT SUBMIT APPLICATIONS VIA E-mail

Applications postmarked or personally delivered after the final filing date **August 23, 2021**, will not be accepted for any reason.

All applications/resumes must include “from” and “to” employment dates (month/day/year), time base, and applicable civil service class titles. Applications/resumes received without this information will be rejected.

Dates printed on Mobile Bar Codes, such as the Quick Response (QR) Codes available at the USPS, are not considered Postmark dates for the purpose of determining timely filing of an application.

EXAMINATION INFORMATION

To obtain a position on the eligible list, applicants must receive a minimum rating of 70% on the examination. *This exam will consist of the following:*

A TRAINING AND EXPERIENCE NARRATIVE DOCUMENT WHICH RESPONDS TO THE FOLLOWING FIVE QUESTIONS:

1. Describe five or more steps you would take to collect a sample of drinking water for a community water system.
2. You have a ruptured water main at your facility. Describe nine or more steps you would take to mitigate the issue.
3. As a Water and Sewage Plant Operator (WASPO) you receive a positive lab result from your Presence/Absence (P/A) test at your facility. Describe six or more steps you would take to address this situation.
4. List five or more examples of the specified tests required by the regulatory agency for a wastewater pond.
5. You have been tasked to install a 300-foot four-inch potable water line. Describe 10 or more steps you would take to ensure proper installation.

When preparing your Training and Experience Narrative; follow the instructions below:

- Please use Arial font, size no smaller than 10
- Limit your responses to no more than a total of three pages (**Only the first three pages will be scored**)
- Your document **MUST** be typewritten (**NO handwritten narratives**)
- Please clearly label the number that corresponds to the question to which you are responding.
- You may include multiple responses on a single page.

In this type of exam, the TRAINING AND EXPERIENCE NARRATIVE DOCUMENT is the examination. It is imperative you refer to the knowledge, skills, and abilities when responding to the questions above.

APPLICATIONS RECEIVED WITHOUT A NARRATIVE MAY RECEIVE A DISQUALIFYING SCORE.

PLEASE NOTE: All exam questions are based on the Knowledge, Skills and Abilities listed in this bulletin and the [Water and Sewage Plant Operator \(Safety\)](#) classification specification which is located on the CalHR website. Use this information when preparing for this exam and retain this bulletin for your reference.

MINIMUM QUALIFICATIONS

Possession of a valid State of California Wastewater and Water Treatment Plant Operator Certification issued by the State Water Resources Control Board (Grade I or Grade II) **and** State Department of Health Services (Grade 1 or Grade 2). (Applicants who are within six months of obtaining the required certification will be admitted to the examination but must secure and provide evidence of certification prior to appointment.),

AND

EITHER I

Completion of a recognized apprenticeship for Stationary Engineers. (Apprentices who are within six months of completing their apprenticeship program may be admitted to the examination but must provide evidence of completion prior to appointment.),

OR II

Experience: Four years of experience performing duties which may include the operation and maintenance of water and sewer systems; maintenance and repair of plumbing, boiler, heating, refrigeration, ventilation, laundry, and shop and power equipment of commercial, industrial, or institutional buildings, including the operation and maintenance of air conditioning systems involving the use of automatic controls; and repair of various mechanical equipment, in addition to performing minor building construction and maintenance,

AND

Education: Completion of 670 hours of formalized technical instruction relating to Stationary Engineering in training offered by such established programs as: Job Corps; Skill Centers; ROP; Trades Schools; Military; and Joint Training Partnership Act. (An Associate of Arts or Certificate in Mechanical Electrical Technology, which must have included at least 12 semester units of instruction in heating, ventilation, and refrigeration systems involving the use of automatic controls, may be substituted for the 670 hours of technical instruction. Students who are within six months of completing their degree will be admitted to the examination, but they must provide evidence of completion prior to appointment.) (Two years of additional qualifying experience may be substituted for the required education.)

ADDITIONAL DESIRABLE QUALIFICATIONS

Persons appointed to positions in this class must be reasonably expected to have and maintain sufficient strength, agility, and endurance to perform during stressful (physical, mental, and emotional) situations encountered on the job without compromising their health and well-being or that of their fellow employees or that of inmates or wards.

ELIGIBLE INFORMATION

A Departmental eligible list will be established for the Department of Forestry and Fire Protection. This list will be abolished 12 months after it is established unless the needs of the service and conditions of the list warrant a change in this period.

POSITION DESCRIPTION

Under general direction in a conservation camp in the Department of Forestry and Fire Protection, to perform a variety of skilled work in the operation, maintenance, and repair of a water/wastewater treatment plant, water, sewer, heating, boiler, air conditioning, ventilating, lighting, power, and other mechanical systems normally found in a State conservation camp facility; to work closely with Region, Headquarters facility planners, and various control agencies on facility maintenance problems and code requirements; to maintain order and supervise the conduct of inmates or wards; to instruct or lead inmates, wards, or resident workers in facilities maintenance while protecting and maintaining the safety of persons and property; and to do other related work.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

1. Water and wastewater treatment principles to ensure compliance with all health standards.
2. Applicable laws and regulations (e.g., Federal, State, local) that apply to the Department's water and wastewater treatment plants to stay in compliance.
3. Routine tests (e.g., chlorine residual, pH, turbidity) techniques on water samples to ensure proper operations of water treatment processes.
4. Proper sampling and handling techniques for water and/or wastewater laboratory testing to comply with regulatory guidelines, specifications and operational needs.
5. Wastewater treatment processes (e.g., activated sludge, ponds, septic tanks) to ensure operational effectiveness.

6. Jobsite safety practices to ensure personnel safety while completing assignments to ensure compliance in accordance with the Department's Injury and Illness Prevention Program (IIPP).
7. Water distribution systems to ensure safe and effective operation.
8. Tools and equipment (e.g., hand tools, power tools, diagnostic) to ensure safe and effective repairs are completed.
9. Routine tests (e.g., Dissolved Oxygen [DO], Chemical Oxygen Demand [COD], Sludge Volume Index [SVI]) techniques on wastewater samples to ensure proper operation of wastewater treatment processes.
10. Appropriate use of Personal Protective Equipment (PPE) (e.g., gloves, eye protection, hardhats) to ensure health and safety.
11. Maintenance and repair techniques and procedures of water distribution systems to ensure effective operation in accordance with applicable laws and regulations.
12. Chemical dosages used for the treatment of potable water to ensure proper disinfection and to maintain chlorine residual in the distribution system.
13. Chemical dosages used for the treatment of potable water to ensure compliance with water quality standards.
14. Maintenance of wastewater collection systems to ensure safe and effective operations in accordance with Department policies and procedures.
15. Safety procedures (e.g., trench shoring, confined space, fall protection) to ensure safe and effective operation in accordance with Department policies and procedures.
16. Industry specific terminology to communicate effectively.
17. Federal and State health and safety practices (e.g., California Occupational Safety and Health Administration [Cal/OSHA] to maintain a safe work environment in accordance with Department policies and procedures.
18. Materials (e.g., piping, couplers) and tools (e.g., manhole hook, hydro flushers, augers) used in the maintenance and repair of wastewater collection systems in accordance with applicable laws and regulations.
19. Materials (e.g., tanks, valves, backflow distribution) and principles (e.g., high/low pressures zones, loop systems, hydraulics) used in the operation of water distribution systems to stay in accordance with applicable laws and regulations.
20. Inspection methods (e.g., visual, verbal) and criteria to approve the work of others (e.g., vendors, Department personnel, inmates and/or wards).
21. Specialized equipment (e.g., filters, chlorinators, Supervisory Control and Data Acquisition [SCADA]) used for the treatment of potable water to ensure compliance with all health standards.
22. Required training (e.g., industry, safety, other government agencies) to enhance knowledge, skills, and abilities.
23. Defensive driving techniques (e.g., traffic laws, intersection approach, utilization of warning devices) to safely operate Department vehicles.
24. Parts and supply requisitioning (e.g., procurement, contracts, surplus) to conduct efficient and timely repairs.
25. Mobile communication devices (e.g., cell phones, radios) for effective communication.

Skill to:

1. Efficiently operate water and/or wastewater plants for effective operations.
2. Move in various ways (e.g., twist, kneel, squat) in order to complete jobs, tasks, and projects.
3. Read, write, and speak English at a level required for successful job performance.
4. Safely operate equipment (e.g., motor, pump, portable generator) to ensure safe and effective operation.
5. Multi-task during emergency and non-emergency situations to ensure safety and effective job performance.
6. Properly lift tools and equipment (e.g., pumps, motors, chemicals) to prevent personal injury and damage to equipment.
7. Properly utilize Personal Protective Equipment (PPE) (e.g., gloves eye protection, hard hats) for safe and effective operations and use.
8. Operate various tools (e.g., power, hand, diagnostic) for safe and effective use.
9. Communicate (e.g., verbal, written, electronic) effectively in order to exchange and/or provide information and/or direction.
10. Produce written correspondence (e.g., emails, letters, forms) to effectively convey information.
11. Effectively instruct and train (e.g., safety, repair, procedures) inmates and/or wards on duties, as assigned.
12. Use communication equipment (e.g., radio, cell phone) for effective communication in emergency and non-emergency situations.
13. Operate a computer in order to accomplish job duties and ensure effective job performance.

Ability to:

1. Complete proper water and/or wastewater sample documentation (e.g., chain of custody, labeling, shipping) for laboratory testing.
2. Operate equipment associated with water and/or wastewater treatment systems (e.g., dosing pumps, electrical controls, motors) to ensure safe and effective operation.
3. Interpret laboratory test results and analyses to determine if water and/or wastewater treatment plants meet compliance with regulatory permit requirements.
4. Properly collect and label water and/or wastewater samples for laboratory and routine testing.
5. Ensure the installment of equipment associated with water and/or wastewater treatment systems (e.g., pumps, motors, aerators) to ensure effective operation.
6. Ensure repairs are made to equipment associated with water and/or wastewater treatment systems (e.g., dosing pumps, electrical controls, pumps) in order to keep systems operational.
7. Recommend changes needed of the water and/or wastewater processing systems to ensure compliance in accordance with regulatory laws, regulations and permits.

8. Perform routine tests (e.g., chlorine residual, pH, turbidity) on water samples to ensure proper operation of water treatment processes.
9. Ensure water and/or wastewater samples are tested and analyzed at State certified laboratories to meet compliance with regulatory permit requirements.
10. Analyze situations and take appropriate action in emergency and non-emergency situations to ensure a safe and effective work environment.
11. Interpret permits issued by the regulatory agencies (e.g., State Water Resources Control Board [SWRCB], United States Forest Service) to ensure compliance with discharge permits.
12. Properly store and transport prepared water and/or wastewater samples in appropriate timeframe for delivery to testing facility as required by Federal and State guidelines.
13. Communicate (e.g., written, verbal) effectively with peers, staff, inmates, and control agencies to ensure safe and effective operation.
14. Implement and enforce workplace safety (e.g., trench, confined space, lockout/tag out) procedures as they apply to excavating situations.
15. Follow directions (e.g., written, verbal) to ensure successful completion of work assignments.
16. Read and understand various written materials (e.g., policies, procedures, reports) to ensure proper completion of work assignments.
17. Maintain water integrity (e.g., sampling, testing, chemical dosing) in storage vessels and distributions systems to ensure safety and health standards are met.
18. Repair equipment associated with water and/or wastewater treatment systems (e.g., dosing pumps, electrical controls, valves) to keep systems operational.
19. Perform routine tests (e.g., Dissolved Oxygen [DO], Chemical Oxygen Demand [COD], Sludge Volume Index [SVI]) on wastewater samples to ensure proper operation of wastewater treatment processes.
20. Identify potential problems (e.g., weather, lockdown) that may impact work performance and present solutions in order to minimize operational interruptions.
21. Train inmates and/or wards on safety practices (e.g., inmate/ward orientation, Safety Data Sheets [SDS], tailgate safety sessions) to ensure safe and effective operation.
22. Train inmates and/or wards (e.g., hands on, documentation, Operator in Training [OIT]) in the proper collection and handling of water and/or wastewater sampling for analysis to ensure water quality and compliance.

VETERANS' PREFERENCE

Veterans' Preference will be granted for this examination, pursuant to Government Code section 18973.1, effective January 1, 2014 as follows: 1) Any veteran, widow or widower of a veteran, or spouse of a 100% disabled veteran, who achieves a passing score in an entrance examination, shall be ranked in the top rank of the resulting eligibility list. Any veteran who has been dishonorably discharged or released is not eligible for Veterans' Preference. 2) An entrance examination is defined, under the law, as any open competitive examination. And 3) Veterans' Preference is not granted once a person achieves permanent civil service status. Veteran status is verified by the California Department of Human Resources (CalHR). Directions to apply for Veterans' Preference are on the Veterans' Preference Application (Std. Form 1093), which is available at [CalHR Veterans Information](#).

CONTACT INFORMATION

Department of Forestry and Fire Protection
(916) 894-9580
CALFIREexams@fire.ca.gov

TDD is Telecommunications Device for the Deaf and is reachable only from phones
Equipped with a TDD Device
1 (800) 735-2929 (TT/TDD) 1 (800) 735-2922 (Voice)
STS is Speech-to-Speech Service for persons with a speech disability and is
reachable at
1 (800) 854-7784 (California) or 1 (800) 947-8642 (Nationwide)

GENERAL INFORMATION

For all examinations (with or without a written feature), it is the candidate's responsibility to contact the Department of Forestry and Fire Protection, (916) 894-9580, three weeks after the cut-off/final filing date if he/she has not received a progress notification or notice to appear.

If a candidate's notice of oral interview or performance test fails to reach him/her three days prior to their scheduled appointment due to a verified postal error, he/she will be rescheduled upon written request.

Examination Locations: When a written test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. However, locations of interviews or performance evaluations may be limited or extended as conditions warrant.

Applications are available [online](#) at CalHR, local offices of the Employment Development Department and the testing Department on this job bulletin.

If you meet the requirements stated on this bulletin, you may take this examination, which is competitive. Possession of the entrance requirement does not assure a place on the eligible list. Your performance in the examination will be compared with the performance of the others who take this test, and all candidates who pass will be ranked according to their scores.

The Department of Forestry and Fire Protection reserves the right to revise the examination plan to better meet the needs of the service, if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all competitors will be notified.

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties of the classification. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) Departmental promotional, 3) multi-Departmental promotional, 4) service-wide promotional, 5) Departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

If High School Equivalence is Required: Equivalence to completion of the 12th grade may be demonstrated in any one of the following ways: 1) passing the General Educational Development (GED) Test; 2) completion of 12 semester units of college work; 3) certification from the State Department of Education, a local school board, or high school authorities that the candidate is considered to have education equivalent to graduation from high school; 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.

Confidentiality and Security: Pursuant to Government Code Sections 19680(c) and 19681(b) it is unlawful to copy and/or furnish confidential examination material for the purpose of either improving or injuring the chances of any person or to obtain examination questions or other examination material before, during, or after an examination. Every person violating these provisions is guilty of a misdemeanor, and adverse action will be pursued. This may result in the person being barred from competition in future examinations, withheld from certification lists, or cancellation of eligibility for employment in State civil service.

How to apply for Veterans' Preference: The California Department of Human Resources (CalHR) has information on how to apply for Veterans' Preference at [CalHR Veterans Information](#), and the Application for Veterans' Preference determination ([CalHR 1093](#)).